

REMARKS***Summary of the Amendment***

Upon entry of the above amendment, claims 9 - 12 will have been amended and claims 14 and 15 will have been entered for consideration by the Examiner. Accordingly, claims 9 - 15 remain pending.

Summary of the Official Action

In the instant Office Action, the Examiner has rejected claims 9 - 11 based upon formal matters and rejected claims 9 - 13 over the art of record. By the present amendment and remarks, Applicants submit that the rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

Rejection Under 35 U.S.C. § 112, First Paragraph is Moot

Applicants submit that the rejection of claims 9 - 11 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, is moot in view of Applicants' amendments to claims 9 - 11.

In particular, the language with regard to "all nips" has been removed and claim 9 has been amended to clarify that the web is dewatered in only one press nip. Applicants note that this amendment finds support in the original application in paragraph [0010], in which it is disclosed that, according to the invention, tissue machines can be embodied with only one

single shoe pressing gap. Moreover, it is further apparent from the original disclosure that one of the drawbacks of the prior art was that known machines used two or more press gaps, and that the instant invention overcomes the drawbacks of the prior art.

Accordingly, Applicant submits that claims 9 - 11 are fully in compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, and that the instant rejection is moot and should be withdrawn.

Traversal of Rejection Under 35 U.S.C. § 103(a)

1. Over Laapotti '820

Applicants traverse the rejection of claims 9, 10, and 12 under 35 U.S.C. § 103(a) as unpatentable over LAAPOTTI (U.S. Patent No. 4,976,820) [hereinafter "LAAPOTTI '820"]. The Examiner asserts that Figures 1 and 1A show the recited features, including a time duration of 20 ms and a pressure of between 0.2 and 1 MPa, and that LAAPOTTI '820 teaches the pressure is intensified to a peak value approximately one order higher than the pressure applied in the preceding step. Applicants traverse the Examiner's assertions.

Applicants note that the instant invention is directed to a machine for the production of a tissue web. In order to achieve a saleable tissue, it is necessary that the web be a high bulk web, which is achieved in the present invention through gentle dewatering of the web at pressing pressures of maximally 2MPa throughout the pressing procedure.

As discussed above, one of the drawbacks of the known systems was that the

machines used more than two presses. The instant invention overcomes this deficiency of the known systems in independent claim 9, which recites, *inter alia*, dewatering, *in only one press nip*, the fiber material web, such that the dewatering is performed by pressing the fiber material web together with a band at a *dewatering pressing pressure of at most 2 MPa* in the only one press nip, and the dewatering pressing pressure in the only one press nip is exerted for a time duration of at least 3.5 ms. Thus, it is apparent that independent claim 9, as now amended, recites that the dewatering of the web is performed in only one press nip exerting a pressure of at most 2 MPa for a duration of at least 3.5 ms, which is neither taught nor suggested by LAAPOTTI '820.

Further, Applicants note that independent claim 12 recites, *inter alia*, pressing the fiber material web against a tissue drying cylinder such that a *pressing pressure of at most 2 MPa is exerted on the fiber material web against the tissue drying cylinder*, such that the fiber material web is pressed against the tissue drying cylinder for a time duration of at least 3.5 ms. Applicants submit that LAAPOTTI '820 fails to teach or suggest at least the above-noted features.

Applicants note that independent claim 9 has been clarified to recite that the web is dewatered in only one press nip. In contrast to the instant invention, LAAPOTTI '820 discloses a method in which the web is pressed at least twice, which is contrary to expressly recited feature of at least independent claim 9, as now amended.

While the Examiner notes that Applicants' claims are open-ended "comprising" claims, Applicants note that LAAPOTTI '820 fails to teach or suggest dewatering "in only one press nip," as recited in at least independent claim 9, as now amended. Applicants note that the limitations in the claims, i.e., "only," cannot be ignored or read out of Applicants' claims in construing the art of record.

Moreover, because LAAPOTTI '820 discloses that the low pressure pressing and the high pressure pressing have distinct purposes in the method of LAAPOTTI '820, Applicants submit that it would not have been obvious to simply eliminate one of the disclosed pressings without some teaching or suggestion in the art. As the art of record fails to provide any support for such a modification of LAAPOTTI '820, Applicants submit that the rejection of at least independent claim 9 is improper and should be withdrawn.

With regard to independent claim 12, Applicant notes that the claim recites that the web is pressed against a *tissue drying cylinder* in which a maximum pressing force of 2MPa to be exerted on the web against the tissue drying cylinder. This pressing results in the desired gentle dewatering to increase the web bulk and, thereby, improve the quality of the tissue produced.

In contrast to the expressly recited features of at least independent claim 12, Applicants note that LAAPOTTI '820 fails to teach or suggest a tissue drying cylinder. As such, Applicants submit that LAAPOTTI '820 cannot even arguably suggest pressing the

web against a tissue drying cylinder at a pressing pressure of at most 2 MPa, as recited in at least independent claim 12, as now amended.

Because LAAPOTTI '820 fails to disclose each recited feature of claims 9 and 12, Applicants submit that this document fails to provide an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. § 102(b), and that the instant rejection is improper and should be withdrawn.

Further, as LAAPOTTI '820 fails to suggest dewatering in *only one press nip* and fails to suggest pressing the web against a *tissue drying cylinder* with a pressing pressure of at most 2 MPa, Applicants submit that no proper modification of LAAPOTTI '820 renders the instant invention unpatentable. Therefore, Applicants submit that the instant rejection is improper and should be withdrawn.

Further, Applicants submit that claim 10 is allowable at least for the reason that it depends from allowable base claims and because it recites additional features that further define the present invention. In particular, Applicants submit that LAAPOTTI '820 fails to anticipate, *inter alia*, the fiber material web comprises one of a tissue paper and a hygienic paper web, as recited in claim 10. In particular, Applicants submit that LAAPOTTI '820 fails to provide any teaching or suggestion of forming a tissue or hygienic paper web, particularly since the excessive pressing pressure exerted by the hot pressing would disadvantageously reduce the desired bulk and softness of a tissue or hygienic paper web.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 9, 10, and 12 under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

2. Over Laapotti '046 in view of Laapotti '820

Applicants traverse the rejection of claims 9, 10, 12, and 13 under 35 U.S.C. § 103(a) as being unpatentable over LAAPOTTI (U.S. Patent No. 5,043,046) [hereinafter "LAAPOTTI '046"] in view of LAAPOTTI '820. The Examiner asserts that LAAPOTTI '046 shows a drying cylinder 10 opposite an extended nip shoe. While acknowledging that LAAPOTTI '046 is silent as to the pressure and duration within the press nip, the Examiner asserts that it would have been obvious to operate at any pressure and duration. The Examiner has also indicated that, if necessary, LAAPOTTI '820 can be relied upon for teaching using pressures of at most 2MPa and time durations of at least 3.5 msec. Applicants traverse the Examiner's assertions.

As discussed above, Applicants' independent claim 9 recites, *inter alia*, dewatering, *in only one press nip*, the fiber material web, such that the dewatering is performed by pressing the fiber material web together with a band at a *dewatering pressing pressure of at most 2 MPa* in the only one press nip, and the dewatering pressing pressure in the only one press nip is exerted for a time duration of at least 3.5 ms. Further, Applicants note that independent claim 12 recites, *inter alia*, pressing the fiber material web against a tissue

drying cylinder such that a *pressing pressure of at most 2 MPa is exerted on the fiber material web against the tissue drying cylinder*, such that the fiber material web is pressed against the tissue drying cylinder for a time duration of at least 3.5 ms. Applicants submit that no proper combination of LAAPOTTI '046 and LAAPOTTI '820 teaches or suggests at least the above-noted features.

Moreover, Applicants independent claim 13 recites, *inter alia*, passing the fiber material web to be dewatered *through only one press nip together with a band*, and subjecting the fiber material web to be dewatered to a *dewatering pressing pressure of at most 2 MPa* in the only one press nip for a time duration of at least 3.5 ms. Applicants submit that no proper combination of LAAPOTTI '046 and LAAPOTTI '820 teaches or suggests the above-noted features of independent claim 13.

Applicants note that LAAPOTTI '046 is directed to a press nip apparatus having only one press nip. However, Applicants note that the disclosure of this apparatus fails to provide any teaching or suggestion of the process recited in at least independent claims 9, 12, and 13. In particular, while LAAPOTTI '046 discloses a single press nip, there is no teaching or suggestion that this single press nip apparatus is intended as the *only press nip* for dewatering the web in a process for manufacturing a web, as recited in at least independent claims 9 and 13. Moreover, Applicants note that, contrary to the expressly recited features of at least independent claim 12, LAAPOTTI '046 fails to provide any teaching or suggestion that the

press nip apparatus is structured to press the web against a tissue drying cylinder.

Still further, Applicants note that LAAPOTTI '046 fails to provide any teaching or suggestion of a maximum pressing pressure to be exerted on the web, and certainly fails to provide any suggestion of a maximum pressing pressure for dewatering a web in only one press nip and/or a maximum pressing pressure for pressing a web against a tissue drying cylinder, as recited in at least independent claims 9, 12, and/or 13.

While the Examiner has asserted that LAAPOTTI '820 provides a teaching of a maximal pressing pressure, Applicants submit that the press employed by LAAPOTTI '820 is wholly distinct from the single press nip apparatus of LAAPOTTI '046. Moreover, as LAAPOTTI '820 discloses that two wholly distinct pressing pressures should be exerted on the web, this document provides no guidance to one ordinarily skilled in the art as to the maximum pressing pressure to be exerted in the single press nip apparatus of LAAPOTTI '046.

Further still, as LAAPOTTI '820 discloses a plurality of distinct press stages within the press area, it is not apparent why one ordinarily skilled in the art would adopt one of these pressures for operating LAAPOTTI '046, when LAAPOTTI '820 clearly discloses that it is the combination of these pressures that are necessary to achieve the desired results. Thus, Applicants submit that it would not have been obvious to modify LAAPOTTI '046 in the manner asserted by the Examiner.

Accordingly, Applicants submit that no proper combination of the applied documents teaches or suggests the combination of features recited in at least independent claims 9, 12, and 13. Further, Applicants submit that, even assuming, *arguendo*, that the documents were combined in the manner asserted by the Examiner, since neither document provides any teaching or suggestion of dewatering in only one press nip and/or dewatering by pressing the web against a tissue drying cylinder, the instant invention is not rendered unpatentable by the applied art of record.

Further, Applicants submit that claim 10 is allowable at least for the reason that it depends from allowable base claims and because it recites additional features that further define the present invention. In particular, Applicants submit that no proper combination of LAAPOTTI '046 and LAAPOTTI '820 fails to render unpatentable, *inter alia*, the fiber material web comprises one of a tissue paper and a hygienic paper web, as recited in claim 10.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 9, 10, 12, and 13 under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

3. Over Schiel in view of Laapotti '820

Applicants traverse the rejection of claims 9, 10, 12, and 13 under 35 U.S.C. § 103(a) as being unpatentable over SCHIEL (U.S. Patent No. 6,004,429) in view of LAAPOTTI

'820.

Applicants note that SCHIEL is directed to a machine and method for producing a creped web with a *shoe pre-press* and a *main shoe press*, which is contrary to the expressly recited features of at least independent claims 9 and 13. Further, Applicants note that SCHIEL discloses a maximal pressing pressure that is 20 % greater than that recited in Applicants' independent claim 12. Moreover, SCHIEL fails to provide any teaching or suggestion of the a dwell time of the web in the press nip, as recited in at least independent claim 12.

Moreover, SCHIEL fails to provide any teaching or suggestion for reducing the pressing pressures in the main press to levels that would render the instant invention obvious. While asserting that it would have been obvious for SCHIEL to operate at pressures lower than its disclosed operating range, the Examiner has not pointed to any teaching within the art of record that would provide the motivation or rationale to one ordinarily skilled in the art to operate outside the disclosed range. In fact, Applicants note that, while SCHIEL provides reasons for operating within his discloses pressure range, he does not provide any reasons for operating outside of the range. Thus, Applicants submit that SCHIEL provides no guidance to those ordinarily skilled in the art for operating his press outside of the disclosed ranges.

Further, Applicants note that, while the Examiner has applied LAAPOTTI '820 for

teaching dwell times, this document fails to provide any teaching or suggestion for operating SCHIEL outside of its disclosed operational pressure range and, therefore, fails to render the instant invention obvious.

Because none of the applied documents provide any teaching or suggestion for modifying SCHIEL in any manner which would render unpatentable the instant invention recited in at least independent claims 9, 12, and 13, and because SCHIEL alone fails to suggest any such modification, Applicants submit that process recited in at least independent claims 9, 12, and 13 are not rendered obvious by any proper combination of SCHIEL and LAAPOTTI '820.

Further, Applicants submit that claim 10 is allowable at least for the reason that it depends from allowable base claims and because it recites additional features that further define the present invention. In particular, Applicants submit that SCHIEL fails to teach or suggest, *inter alia*, the fiber material web comprises one of a tissue paper and a hygienic paper web, as recited in claim 10.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 9, 10, 12, and 13 under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

4. Over Schiel with Laapotti '820 and further in view of Eber

Applicants the rejection of claim 11 as being unpatentable over SCHIEL in view of

LAAPOTTI '820 and EBER.

As discussed above, none of the applied documents teach or suggest a process in which the pressing pressure exerted in the only one press nip is at most 2 MPa. Accordingly, Applicants submit that no proper combination of such documents can render unpatentable the instant invention.

Thus, Applicants submit that no proper combination of SCHIEL, LAAPOTTI '820, and EBER teaches or suggests the combination of features recited in at least independent claim 9.

Further, Applicants submit that claim 11 is allowable at least for the reason that it depends from allowable base claims and because it recites additional features that further define the present invention. In particular, Applicants submit that no proper combination of SCHIEL, LAAPOTTI '820, and EBER teaches or suggests, *inter alia*, the fiber material web comprises curled fibers, as recited in claim 11.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claim 11 under 35 U.S.C. § 103(a) and indicate that this claim is allowable.

Newly Submitted Claims are Allowable

Applicants submit that new presented claims 14 and 15 are allowable over the art of record. In particular, as new claims 14 and 15 depend from allowable base claims and as these claims recite additional features that further defines the invention over the art of record,

these claims are allowable.

Accordingly, Applicants request that the Examiner consider the merits of new claims 14 and 15 and indicate that these claims are allowable.

Application is Allowable

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

Authorization to Charge Deposit Account

The undersigned authorizes the charging of any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, in order to maintain pendency of this application to Deposit Account No. 19 - 0089.

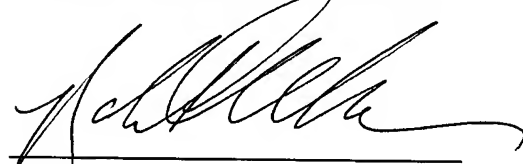
CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants' invention, as recited in each of claims 9 - 15. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,
Thomas Thoroe SCHERB et al.



Neil F. Greenblum

Reg. No. 28,394

RA 35, 8/3

September 30, 2003
GREENBLUM & BERNSTEIN, P.L.C.
1941 Roland Clarke Place
Reston, VA 20191
(703) 716-1191